Don’t Call me a Gambler: Advantage Play and its Place in Financial Literacy Courses

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Imagine a world where a multibillion-dollar industry preys on impressionable teens, luring them with celebrity endorsements that portray the rush and euphoria of participation. Many readers might think of the manipulative tactics of the tobacco industry before regulation curbed its reach, but today that description best fits the sports-betting industry. The rise of gambling has become an epidemic in the modern world, a quarter of teens have been exposed to gambling by celebrity endorsements, and one third of those aged 16-17 admitted to participating in such activities because of them (GambleAware, 2025). Schools have yet to effectively address this growing issue; studies show that existing gambling education in different forms has very little correlation with actual reduction in behavior. A more effective response lies in strengthening the mathematical and financial literacy of teens and young adults.Advantage play, in short, is the act of applying statistical analysis and disciplined strategies to games of chance, such as blackjack, poker, or sports betting, in order to gain a measurable edge over the house or market, and it offers the most effective foundation for gambling education because it teaches students how probabilistic systems work in practice, strengthens their financial and mathematical literacy through applied analysis, provides a concrete framework for understanding risk and expected value, and equips them with the critical thinking skills needed to recognize and resist harmful gambling influences in the real world.

Discussions around gambling often treat all forms of participation as equal, but the reality is far more complex. There is a clear difference between harmful gambling habits and mathematically grounded strategies that rely on discipline and statistical reasoning. My understanding of this distinction comes from personal experience; I have studied and practiced card counting, which requires careful probability analysis rather than impulsive decision-making. This background helps illustrate how advantage play functions as a structured, analytical process

rather than the kind of risky behavior typically associated with gambling, and why its underlying skills can be valuable in an educational setting.

These kinds of math driven decisions in the context of financial literacy are already what many researchers already suggest. “It is essential to develop targeted financial education programs, particularly in contexts with high availability of gambling opportunities, and to consider the multidimensional aspects of financial literacy for more effective protection”(Barone & Graffigna, 2025), and it is important to consider that students need a concrete, real world framework where the ideas of finance, often esoteric and complicated, can be analyzed in a more simple and understandable way. One such framework that is both relatively easy to analyze and addresses misconceptions that current gambling programs have primarily focused on up to this point is advantage play. While advantage play is tied to specific games, the underlying skills: tracking patterns, calculating probabilities, evaluating risk, and making data-driven decisions are broadly applicable to other areas that involve uncertainty and strategy, including investing and financial decision-making. These underlying skills can transfer to situations beyond a gambling environment quite well. In a 2022 study, Yan Lu and colleagues found that hedge fund managers who do well in poker tournaments have greater monthly net inflows, between about 1.5–1.8%, which increases as their wins get higher profile, up to 1.9–3.5% for the world series. This suggests that analytical skills cultivated through advantage play are transferable and valuable in real world financial decision making, suggesting the potential of it as an educational tool.

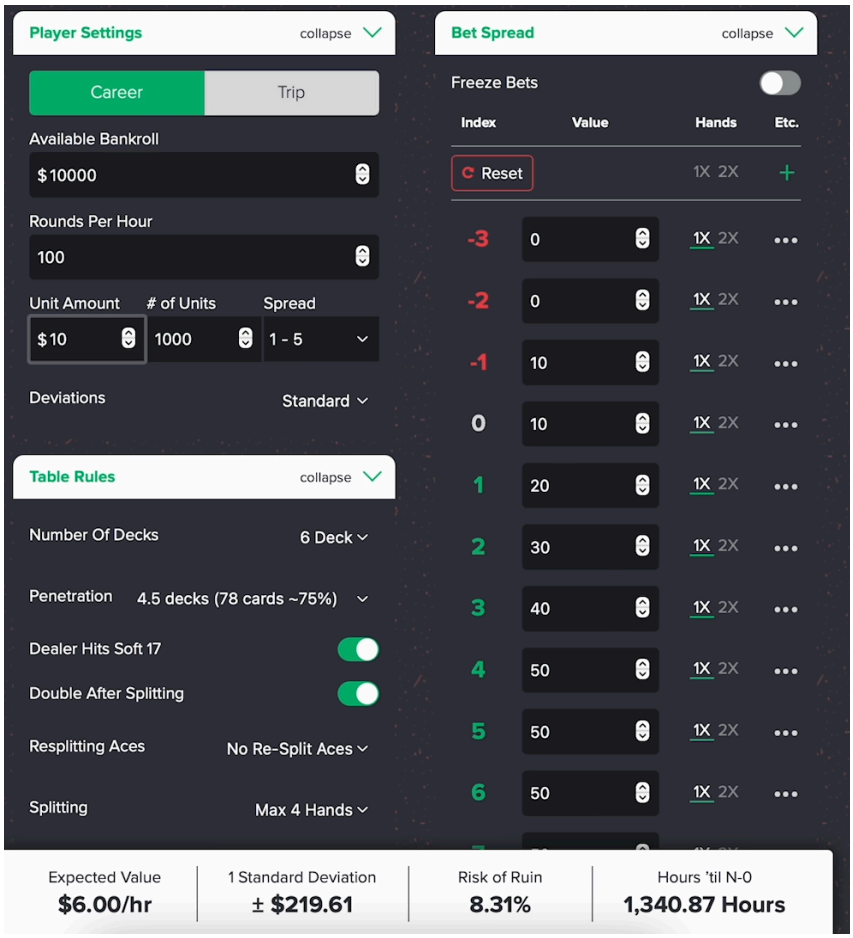
On the topic of hedge funds, the parallels between investing and advantage play are undeniable. Unlike gambling, which exclusively focuses on short term wins, investing rewards thinking months or years down the line and focuses on expected returns, risk of loss, and stability. Central to both investing and advantage play is the idea that short-term fluctuations do

not dictate long-term outcomes. The markets shift up and down, from the dot-com bubble to the global financial crisis. These events make the markets swing wildly from month to month and year to year, but "investors who stick to a long-term financial plan are much more likely to achieve their goals than those who try to time the market."(RBC Global Asset Management Inc., 2022) Introducing advantage play in educational settings provides a concrete way for students to see abstract mathematical and probabilistic concepts in action, helping them internalize lessons about risk, expected value, and disciplined planning.

These lessons can be very complicated, given the complexity of markets. Teaching these concepts in context more easily analyzed, such as blackjack, provides a more tangible example of how long term, math driven strategies work in practice. The primary advantage of blackjack as a teaching tool for both gambling and investment education is the extensive study that has been done on the game. When taught alongside traditional investing, it gives students the ability to see exactly how gambling and investing differ, and apply both mentalities to something familiar.

Figure 1

Professional Blackjack Betting Software



Note. From *Pro Betting Software* [Screenshot], by Blackjack Apprenticeship, 2025, blackjackapprenticeship.com (https://www.blackjackapprenticeship.com/features/pro-betting-software/).

As shown in figure 1, blackjack betting software models many variables at once: the rules of the game, the player's betting strategy, and the size of their bankroll. The program then outputs results in a way that mirrors the considerations an investor faces, such as expected return and risk. The advantage of using blackjack for this purpose is that, unlike the stock market, a player's edge can be reduced to a single, concrete number at any given moment. This makes it easier for

students to explore concepts like risk, expected value, and decision-making in a tangible way, providing a foundation for understanding more abstract financial ideas later.

When considering the way educators teach students complicated ideas, it's important to consider how well they can retain the information as well, as if they can retain the information, they are more immune to the traps of gambling for longer. In stem courses, advantage play being a form of math, using real world problem solving has been shown to improve one-year retention by 10-12% (Davis & Burkholder, 2024) showing the potential for advantage play to provide more memorable skills than other, non real world learning anti-gambling messaging. Not only does this reduce the risk of gambling, it provides teens with skills they may find themselves benefiting from in real life situations. One incredible example of this is in the popular video game of *Minecraft*, in a popular online variant of the game with a few million players there is a lootbox that players can spend materials to open and get random payouts, "what if you actually did the math and realized [that lootbox] not only virtually impossible to lose, you might have just discovered the greatest money-making method in the history of the entire game"(Something like that, 2024). Thus, the evidence has shown engaging with these systems can help teens practice careful calculation and risk assessment, skills they can apply in everyday situations like budgeting, planning, and evaluating opportunities even in things they enjoy already.

Critics may argue that teaching advantage play as part of a math or finance curriculum could encourage risky behavior rather than prevent it. If students learn that certain forms of gambling can be beaten with the right techniques, they may become overconfident and replicate results that in reality, require intense training. In fact, this is a well documented phenomenon in the advantage play community. According to a professional who would eventually earn millions through advantage blackjack, early attempts at applying these techniques were often far from

perfect. He recalls that when his friend tested his skills, “I failed miserably. I made a couple counting mistakes, missed payout errors, and overlooked deviations. I was humiliated”(Jones, 2020)Prior to attempting to become an advantage player, this person already had a degree in mathematics, and still fell victim to the overconfidence common in beginners. Critics may use this fact to argue that if even highly educated people can misjudge their abilities, exposing teens and young adults to these concepts may increase the number of people who believe they can gamble profitably, only to discover the hard way they can not.

While it may be true that this could be an issue if card counting is glorified, a well crafted curriculum would simply encourage learning of the tools rather than encouraging students to use them in risky situations. Certain gambling education programs already in circulation teach gambling in immersive and applied ways, for example learners who are “[introduced to] the Basic Strategy chart for Blackjack It is crucial to frame this chart not as a list of rules to be memorized, but as the solution set to a vast number of complex conditional probability problems…”(TeacherPH, n.d.) which demonstrates how it is already accepted to teach gambling in a way that at first sounds like advice, or “teaching teens how to gamble” when in reality it teaches the underlying tools in a more engaging and precise way. The lessons are not constructed to teach and encourage teens to “beat the house”, which could potentially lead to this issue, but to use them as simpler examples of concepts they may find useful later.

Taken together, it is clear that advantage play has strong academic value as a teaching tool for students and offers a more effective way of preventing gambling harms. The lessons learned from Advantage play extend far beyond merely dissuading kids from engaging with gambling practices, but teach them to engage with them in a much more analytical way. This could apply to the stock market, some video games and the casinos and sports books that they

originate from. In a world where more and more aspects of teens' lives include gambling in forms from video game loot boxes to traditional gambling vehicles like blackjack, it becomes increasingly important to arm them with the ability to engage critically rather than blindly.

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